

Notes

Author's Note

1. Flood Control Act of 1936, 22 June 1936, in *U.S. Statutes at Large*, vol. 49, p. 1570 (hereafter cited as 49 Stat. 1570).
2. Robert de Roos and Arthur A. Maass, "The Lobby That Can't Be Licked," *Harpers* 199 (August 1949): 23; William E. Leuchtenburg, *Flood Control Politics: The Connecticut River Valley Problem, 1927-1950* (Cambridge: Harvard University Press, 1953), pp. 96-105.

Chapter I

1. The *Gibbons v. Ogden* case and the whole issue of internal improvements are discussed in George Dangerfield, *The Awakening of American Nationalism, 1815-1828* (New York: Harper & Row, 1965), pp. 6-7, 16-20, 196-200. The role of the Corps of Engineers in these activities is described in W. Stull Holt, *Office of the Chief of Engineers of the Army: Its Non-Military History, Activities, and Organization* (Baltimore: Johns Hopkins University Press, 1923); and Edward L. Pross, "A History of Rivers and Harbors Appropriations Bills, 1866-1933," Ph.D. dissertation, Ohio State University, 1938.
2. See the statement of Royal Copeland in U.S., Congress, *Congressional Record* (hereafter cited as *Cong. Rec.*), 74th Cong., 2d sess., 28 April 1936, p. 6290.
3. Frank J. Trelease, "Water Law," in Ven T. Chow, ed., *Handbook of Applied Hydrology: A Compendium of Water-Resources Technology* (New York: McGraw-Hill Book Co., 1983), sect. 27, p. 22.
4. The most extensive discussion of these acts is found in Robert W. Harrison, *Alluvial Empire: A Study of State and Local Efforts Toward Land Development in the Alluvial Valley of the Lower Mississippi River* (Little Rock, AR: Delta Fund in cooperation with Economic Research Service of U.S. Department of Agriculture, distributed by Pioneer Press, 1961), pp. 67-70.
5. *Ibid.*, p. 59; Richard K. Cralle, ed., *Reports and Public Letters of John C. Calhoun* (New York: Russell & Russell, 1968 [1856]), pp. 273-283; Clyde N. Wilson, ed., *The Papers of John C. Calhoun*, 18 vols. (Columbia, SC: University of South Carolina Press and South Carolina Department of Archives and History, 1983), 15: 444.
6. Martin Reuss, "Andrew A. Humphreys and the Development of Hydraulic Engineering: Politics and Technology in the Army Corps of Engineers, 1850-1950," *Technology and Culture* 26 (January 1985): 1-33.

7. William G. Hoyt and Walter B. Langbein, *Floods* (Princeton, NJ: Princeton University Press, 1955), pp. 228-230; Pittsburgh Flood Control Commission, *Report of the Flood Control Commission of Pittsburgh, Pennsylvania* (hereafter cited as *Report*) (Pittsburgh: The Commission, 1912), pp. 6-15.

8. Arthur D. Frank, *The Development of the Federal Program of Flood Control on the Mississippi River* (hereafter cited as *Flood Control on the Mississippi*) (New York: Columbia University Press, 1930), pp. 45-74.

9. *Ibid.*, pp. 28-44.

10. *Ibid.*, pp. 140-141, 143.

11. *Ibid.*, p. 143.

12. U.S., Congress, *Cong. Rec.*, 64th Cong., 1st sess., 10 May 1916, p. 7764.

13. *Ibid.*, p. 7768.

14. Frank, *Flood Control on the Mississippi*, pp. 147-153; Harrison, *Alluvial Empire*, pp. 129-131.

Chapter II

1. Pittsburgh Flood Control Commission, *Report*, pp. 11-13; Maurice Knowles, "Flood: Pittsburgh's Problem and Its National Significance," *The Survey* 27 (3 February 1912): 1699-1705.

2. Hoyt and Langbein, *Floods*, pp. 359-360; Leland R. Johnson, *The Headwaters District: A History of the Pittsburgh District, U.S. Army Corps of Engineers* (Pittsburgh: U.S. Army Engineer District, 1979), pp. 187-196.

3. Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge: Harvard University Press, 1959), pp. 91-121.

4. *Ibid.*, pp. 105-108.

5. *Ibid.*, pp. 109-114, 203-205.

6. U.S., Congress, *Cong. Rec.*, 64th Cong., 1st sess., 3 February 1916, pp. 2068-90.

7. *Ibid.*, p. 2073.

8. *Ibid.*, p. 2090.

9. *Ibid.*, 10 May 1916, p. 7779.

10. Congress regarded the Sacramento River problem as another special case, and in 1893 the California Debris Commission was created to provide federal aid. See Joseph L. Hagwood, *The California Debris Commission* (Washington, DC: U.S. Army Corps of Engineers, 1981), pp. 28-30.

11. Martin Reuss and Paul K. Walker, *Financing Water Resources Development: A Brief History* (Washington, DC: U.S. Army Corps of Engineers, 1983), pp. 14-15; Hays, *Conservation and the Gospel of Efficiency*, pp. 92-94.

12. U.S., *An Act to Provide for the Control of the Floods of the Mississippi River and of the Sacramento River, California, and for Other Purposes*, 39 Stat. 948, 1 March 1917; Harrison, *Alluvial Empire*, pp. 132-133.

13. U.S., *An Act to Provide for the Control of Floods on the Mississippi River*, 39 Stat. 950.

14. Donald B. Johnson and Kirk H. Porter, eds., *National Party Platforms, 1840-1972* (Urbana: University of Illinois Press, 1973), pp. 149, 160, 171, 181, 186, 200.
15. Hays, *Conservation and the Gospel of Efficiency*, pp. 81, 239-240; Beatrice H. Holmes, *A History of Federal Water Resources Programs, 1800-1960*, Miscellaneous Pubs no. 1233 (Washington, DC: U.S. Department of Agriculture Economic Research Service, June 1972), pp. 8-9, 11.
16. U.S., Congress, *Cong. Rec.*, 68th Cong., 2d sess., 27 February 1925, pp. 4803-09.
17. U.S., Congress, House, *Estimate of Cost of Examinations, Etc., of Streams Where Water Power Appears Feasible*, House Doc. 308, 69th Cong., 1st sess., 1926, pp. 3-4. The report was authorized by Section 3 of the Rivers and Harbors Act of 3 March 1925, 43 *Stat.* 1186.
18. U.S., Army, Corps of Engineers, *Annual Report of the Chief of Engineers, Fiscal Year 1927* (Washington, DC: Government Printing Office, 1927), part 1, p. 6.
19. Leuchtenburg, *Flood Control Politics*, p. 31.
20. U.S., Army, Corps of Engineers, *Annual Report of the Chief of Engineers, Fiscal Year 1929* (Washington, DC: Government Printing Office, 1929), part 1, p. 1885.
21. Major F.S. Besson, "Maximum Flood Control Prediction," *The Military Engineer* 25 (September-October 1933): 423-426.
22. U.S., Congress, House, *Tennessee River and Tributaries, North Carolina, Tennessee, Alabama, and Kentucky*, House Doc. 328, 71st Cong., 2d sess., 1930; Preston J. Hubbard, *Origins of the TVA: The Muscle Shoals Controversy, 1920-1932* (Nashville: Vanderbilt University Press, 1961), pp. 173-174, 251-252, 275-276, 291-295; Herman Pritchett, *The Tennessee Valley Authority* (Chapel Hill: University of North Carolina Press, 1943), pp. 11-29.
23. Frank, *Flood Control on the Mississippi*, p. 192.
24. Pete Daniel, *Deep'n as It Come: The 1927 Mississippi River Flood* (New York: Oxford University Press, 1977); American Red Cross, *The Mississippi Valley Flood Disaster of 1927* (Washington, DC: American Red Cross, 1928), pp. 1-21; Frederic A. Delano, "The Report of the Committee on Mississippi Flood Control Appointed by the United States Chamber of Commerce," *Annals of the American Academy of Political and Social Science* 135 (January 1928): 25-33.
25. Leuchtenburg, *Flood Control Politics*, pp. 27-29; Hoyt and Langbein, *Floods*, pp. 327-373.
26. *New York Times*, 7 November 1927, p. 1.
27. *Baltimore Sun*, 7 November 1927.
28. Leuchtenburg, *Flood Control Politics*, pp. 30-32.
29. Section 2, Flood Control Protection Act of 1928, 15 May 1928, 45 *Stat.* 534; Frank, *Flood Control on the Mississippi*, pp. 206-243.
30. Johnson and Porter, *National Party Platforms*, pp. 274-275, 287.
31. Frank, *Flood Control on the Mississippi*, pp. 180-181.
32. Herbert Hoover, *The Memoirs of Herbert Hoover: The Cabinet and the*

Presidency, 1920-1933 (New York: Macmillan, 1952), pp. 226-234; Edgar E. Robinson and Vaughn D. Bornet, *Herbert Hoover: President of the United States* (Stanford, CA: Hoover Institution Press, 1975), pp. 59-63; Richard Lowitt, *George W. Norris: The Persistence of a Progressive* (Urbana: University of Illinois Press, 1971), p. 458.

Chapter III

1. William E. Leuchtenburg, *Franklin D. Roosevelt and the New Deal* (New York: Harper & Row, 1963), pp. 11-12, 164-165, 339-340; James M. Burns, *Roosevelt: The Lion and the Fox* (New York: Harcourt, Brace and World, 1956), pp. 142-143, 171-185, 242-246.

2. The two best works on Roosevelt's attitudes toward natural resources and conservation are A.L. Riesch Owen, *Conservation Under FDR* (New York: Praeger Publishers, 1983); and Edgar B. Nixon, ed., *Franklin D. Roosevelt and Conservation*, 2 vols. (Hyde Park, NY: Franklin D. Roosevelt Library, 1957).

3. Owen, *Conservation Under FDR*, pp. 5-12, 15-16, 106-112, 128-135.

4. Franklin D. Roosevelt, *Looking Forward* (New York: John Day Co., 1933), p. 64.

5. Reforestation projects could be started quickly and were thus better suited to the temporary nature of the New Deal's early work relief program.

6. Franklin D. Roosevelt, *The Complete Presidential Press Conferences of Franklin D. Roosevelt* (hereafter cited as *Presidential Press Conferences*), 16 vols. (New York: DeCapo Press, 1972).

7. Nixon, *FDR and Conservation*, 1: 32-33.

8. Frank Freidel, *Franklin D. Roosevelt: The Ordeal* (Boston: Little, Brown & Co., 1953), pp. 225-226.

9. Nixon, *FDR and Conservation*, 2: 132-133; Lowitt, *George W. Norris*, pp. 567-568.

10. Samuel Rosenman, ed., *The Public Papers and Addresses of Franklin D. Roosevelt*, 13 vols. (New York: Random House, 1938-1945), 2: 80, 122, 297.

11. In 1933, 1934, and 1935 the federal government spent \$111.3 million on flood control and \$39.0 million on the TVA, compared to \$261.2 million on rivers and harbors navigation. The Departments of Interior and Agriculture spent \$192.9 million on conservation programs during this same three-year period, and \$1.1 billion was spent on roads and highways. Figures from Owen, *Conservation Under FDR*, tables B-1a, B-1b, and B-3, pp. 242-247.

12. Marion Clawson, *New Deal Planning: The National Resources Planning Board* (Baltimore: Johns Hopkins University Press, 1981), pp. 42-43.

13. See, for example, the correspondence between the White House and the congressmen from the Wabash River basin in Indiana, in Official File (OF) 132, Franklin D. Roosevelt Papers, Franklin D. Roosevelt Library, Hyde Park, NY (hereafter cited as FDR Papers).

14. There is no book or scholarly article on Wilson. T. Harry Williams' discussion of him focuses only on the 1928 election. His obituary in the *New York Times* never mentioned the 1936 Flood Control Act, and the *New Orleans*

Times-Picayune said only that "he was an advocate of flood control and drainage measures." T. Harry Williams, *Huey Long* (New York: Alfred A. Knopf, 1969), pp. 248-250, 275-278; *New York Times*, 25 February 1947, p. 25; *New Orleans Times-Picayune*, 24 February 1947.

15. Louis M. Howe to Honorable Riley J. Wilson, 23 May 1933, OF 132, FDR Papers.

16. Colonel Marvin McIntyre to President, 12 Dec. 1933, OF 132, FDR Papers.

17. Lowitt, *George W. Norris*, pp. 34-35, 190-216, 260-271, 396-397.

18. Tennessee Valley Authority Act of 1933, 18 May 1933, 48 *Stat.* 58.

19. U.S., Congress, *Cong. Rec.*, 73d Cong., 2d sess., 4 January 1934, p. 56; Richard Lowitt, *George W. Norris: The Triumph of a Progressive, 1933-1944* (Urbana: University of Illinois Press, 1978), pp. 44-45, 48-49.

20. Nixon, *FDR and Conservation*, 1: 238-239.

21. *Ibid.*, pp. 240-241.

22. Senator Clarence Dill to President Franklin D. Roosevelt, 29 Dec. 1933, OF 132, FDR Papers; Nixon, *FDR and Conservation*, 1: 234-235.

23. Rosenman, *Public Papers of FDR*, 3: 11.

24. Nixon, *FDR and Conservation*, 1: 237.

25. Franklin D. Roosevelt to Senator Clarence Dill, 9 Jan. 1934, in *ibid.*, p. 240.

26. H.M. Kannee to Colonel McIntyre, 26 Jan. 1934, OF 132, FDR Papers.

27. Roosevelt, *Presidential Press Conferences*, 3: 120.

28. U.S., Congress, *Cong. Rec.*, 73d Cong., 1st sess., 1 February 1934, p. 1737, and 2 Feb. 1934, p. 1854.

29. U.S., Congress, House, *Development of Rivers in the United States: Preliminary Report of the President's Committee on Water Flow*, House Doc. 395, 73d Cong., 2d sess., 1934.

30. *Ibid.*, p. 9.

31. *Ibid.*

32. *Ibid.*, pp. 10-13.

33. For a somewhat different and more critical perspective on Dern's letter, see Arthur Maass, *Muddy Waters: The Army Engineers and the Nation's Rivers* (Cambridge: Harvard University Press, 1951), pp. 72-74.

34. U.S., Congress, *Cong. Rec.*, 73d Cong., 1st sess., 13 April 1934, p. 6603.

35. *Ibid.*, 17 April 1934, p. 6741.

36. *Ibid.*, p. 6743.

37. *Ibid.*, p. 6747.

38. *Ibid.*, 11 May 1934, p. 8611.

39. *Ibid.*, p. 8612.

40. Roosevelt, *Presidential Press Conferences*, 3: 150-151.

41. *Ibid.*, p. 151.

42. *Ibid.*, pp. 151-152.

43. *Ibid.*, pp. 152-154.

44. Memo for the President, 16 Feb. 1934, subj.: Representative Henry T. Rainey, Speaker of the House, OF 132, FDR Papers.

45. Nixon, *FDR and Conservation*, 1: 286-287.
46. Ibid., p. 287.
47. Maass, *Muddy Waters*, pp. 76-77; Nixon, *FDR and Conservation*, 1: 287n.
48. Memo for the President, 11 June 1934, OF 132, FDR Papers.

Chapter IV

1. Executive Order 6777, 30 June 1934, in Rosenman, *Public Papers of FDR*, 3: 335-336.
2. Jean Christie, *Morris Llewellyn Cooke: Progressive Engineer* (New York: Garland Publishing, 1983), pp. 141-180. On Cooke's plan for rural electrification, see Morris L. Cooke to Secretary Harold L. Ickes, 12 Dec. 1933, Ickes File, Box 263, Morris L. Cooke Papers, Franklin D. Roosevelt Library. Arthur M. Schlesinger, Jr., *The Age of Roosevelt: The Politics of Upheaval* (Boston: Houghton Mifflin Co., 1960), pp. 380-383; Clawson, *New Deal Planning*, p. 115; Interview, Martin Reuss with Gilbert F. White, University of Colorado, 25 June 1985, Oral History Archives, Office of History, U.S. Army Corps of Engineers, Fort Belvoir, VA (hereafter cited as White interview), p. 13.
3. U.S., Public Works Administration, *Report of the Mississippi Valley Committee of the Public Works Administration* (Washington, DC: Government Printing Office, 1934); Christie, *Morris Llewellyn Cooke*, pp. 145-160.
4. U.S., National Resources Committee, *Drainage Basin Problems and Programs* (Washington, DC: Government Printing Office, 1937).
5. U.S., National Resources Board, *A Report on National Planning and Public Works in Relation to Natural Resources and Including Land Use and Water Resources With Findings and Recommendations* (Washington, DC: Government Printing Office, 1934), pp. 2-5; Minutes of First Meeting of the Water Resources Committee, 24 July 1935, pp. 4-6, Records of the National Resources Planning Board, Frederic A. Delano Files, Box 3, Record Group (RG) 187, National Archives and Records Administration (NARA), Washington, DC.
6. Rosenman, *Public Papers of FDR*, 4: 61.
7. Leuchtenburg, *FDR and the New Deal*, pp. 124-125; Schlesinger, *The Politics of Upheaval*, pp. 343-351.
8. U.S., Congress, *Cong. Rec.*, 74th Cong., 1st sess., 22 August 1934, pp. 14086-87. The House action particularly galled the NRC's Charles W. Eliot, who said that only two Ways and Means Committee members voted for the NRC. He later received letters from six members, each one assuring him that they were one of the two supporters. Charles W. Eliot to Joseph P. Harris, 25 June 1936, Records of the National Resources Planning Board, Frederic A. Delano Files, Box 1, RG 187, NARA.
9. National Industrial Recovery Act of 1933, 48 Stat. 200, Title II, sect. 202.
10. Clawson, *New Deal Planning*, p. 6; Barry D. Karl, *Charles E. Merriam*

and the Study of Politics (Chicago: University of Chicago Press, 1971), pp. 241, 252-253.

11. White interview, pp. 19, 23.

12. U.S., Congress, House, *Report on H.R. 6803, Funds for the Prosecution of Works for Flood Control and Protection Against Flood Disasters*, House Doc. 486, 74th Cong., 1st sess., 1935, p. 1.

13. U.S., Congress, House, Committee on Flood Control, *Hearings Before the Committee on Flood Control on H.R. 6803: A Bill to Authorize Funds for the Prosecution of Works for Flood Control and Protection Against Flood Disasters, March 22 and 23, and April 2, 1935* (Washington, DC: Government Printing Office, 1935), p. 1.

14. The Corps report contained a map of the United States showing the location of all 1,600 projects, which so impressed Senator Huey Long (D-Louisiana) that he had it reprinted in the *Congressional Record*. See U.S., Congress, *Cong. Rec.*, 74th Cong., 1st sess., 4 April 1934, p. 5016.

15. U.S., Congress, House, Committee on Flood Control, *Hearings Before the Committee on Flood Control on H.R. 6803*, p. 27.

16. *Ibid.*, pp. 14-15. The priority group 1-3 figures add up to only \$602 million, but the figure used by Congressman West in the hearings was \$604 million.

17. *Ibid.*, pp. 16, 18.

18. *Ibid.*, p. 5.

19. *Ibid.*, pp. 5, 18.

20. *Ibid.*, p. 9.

21. *Ibid.*, pp. 19, 24.

22. U.S., Congress, House, *Report on H.R. 6803*, House Doc. 486, pp. 1-2.

23. Riley J. Wilson to Honorable Franklin D. Roosevelt, 15 Apr. 1935, OF 132, FDR Papers.

24. U.S., Congress, House, *H.R. 8455, A Bill Authorizing the Construction of Public Works on Rivers and Harbors for Flood Control and for Other Purposes*, 74th Cong., 1st sess., 1935, p. 2, sect. 2.

25. *Ibid.*

26. U.S., Congress, House, Committee on Flood Control, *Report on H.R. 8455, Construction of Certain Public Works on Rivers and Harbors for Flood Control*, House Doc. 1223, 74th Cong., 1st sess., 1935.

27. *Ibid.*, p. 2.

28. Franklin D. Roosevelt to Honorable Riley J. Wilson, Chairman, Committee on Flood Control, 16 June 1934, OF 132-A, FDR Papers.

29. U.S., Congress, House, Committee on Flood Control, *Hearings Before the Committee on Flood Control on H.R. 6803*, p. 21.

30. U.S., Congress, Senate, Committee on Commerce, *Report on S. 3531, To Amend the Flood Control Act of May 15, 1928*, S.R. 1662, 74th Cong., 2d sess., 1936, pp. 3-4.

31. Roosevelt, *Presidential Press Conferences*, 3: 150-151.

32. A complete list of the projects appears in U.S., Congress, *Cong. Rec.*, 22 August 1935, pp. 14181-86.

33. Under Executive Order 7065 (7 June 1935), the National Resources Board was reconstituted as the National Resources Committee and the Water Planning Committee was renamed the Water Resources Committee. See Clawson, *New Deal Planning*, pp. 46-47.

34. Memorandum, Daniel W. Bell, Acting Director, Bureau of the Budget, to the President, 20 July 1935; and attached Memorandum, FDR to Acting Director of the Bureau of the Budget, 22 July 1935. Both in OF 132, FDR Papers.

35. Hoyt and Langbein, *Floods*, pp. 379-382. The *New York Times* ran approximately 200 articles between January and August 1935 describing floods in Arkansas, Colorado, Connecticut, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York (71 articles), Ohio, Pennsylvania, Texas, Vermont, Virginia, West Virginia, and Wisconsin. See *New York Times Index for Year 1935* (New York: New York Times Co., 1936), pp. 988-989.

36. Congressman James B. Duffy et al., to the President, 9 July 1935, New York Flood File, OF 83, FDR Papers.

37. *New York Times*, 20 July 1935, p. 14; 22 July 1935, p. 6; 23 July 1935, p. 3; and 29 April 1936, p. 4.

38. Harry Hopkins to the President, 13 August 1935, OF 83, FDR Papers; *New York Times*, 27 July 1935, p. 14, and 2 August 1935, p. 15.

39. All the bills are listed in the U.S., Congress, *Cong. Rec., Index*, 74th Cong., 1st sess., pp. 225-226.

40. Schlesinger, *The Politics of Upheaval*, pp. 291-336; Leuchtenburg, *FDR and the New Deal*, pp. 143-162; *New York Times*, 28 August 1934, p. 1; *Washington Post*, 27 and 28 August 1934.

41. U.S., Congress, *Cong. Rec.*, 74th Cong., 1st sess., 22 August 1934, p. 14151.

42. *Ibid.*, pp. 14152-54, 14179.

43. *Ibid.*, p. 14154.

44. *Ibid.*, p. 14177-78. Congressman Short's reference to rag doll makers and toe dancers probably refers to some of the unemployment relief projects carried out by the Roosevelt administration and Harry Hopkins' WPA theater project.

45. *Ibid.*, pp. 14178-93.

46. *Ibid.*, pp. 14175-76.

47. *Ibid.*, pp. 14186-87.

48. *Ibid.*, pp. 14188-94.

49. *Ibid.*, pp. 14155, 14198-99.

50. *New York Times*, 24 August 1934, p. 2.

51. U.S., Congress, *Cong. Rec.*, 74th Cong., 1st sess., 22 August 1934, p. 14287.

52. *Ibid.*, p. 14288.

53. *Ibid.*, p. 14290.

54. *Ibid.*, p. 14291.

55. Ibid., p. 14296.

56. Ibid.

57. Ibid., p. 14303.

58. Ibid. According to the *New York Times*, many of Tydings' colleagues later said the speech "attained the topmost heights of congressional humor" and by the end of the three-hour address "senators whose claims were being ridiculed made humorous interruptions and sped Mr. Tydings along." *New York Times*, 26 August 1934, p. 2.

59. U.S., Congress, *Cong. Rec.*, 74th Cong., 1st sess., 22 August 1934, p. 14303.

60. Ibid., 23 August 1934, p. 14305.

Chapter V

1. U.S., Department of the Interior, Geological Survey, *The Floods of March 1936: Water Supply Paper 799* (Washington, DC: Government Printing Office, 1937), p. 1.

2. American National Red Cross, *Spring Floods and Tornadoes, 1936* (Washington, DC: American Red Cross, 1938), pp. 11-15.

3. *New York Times*, 12 March 1936, p. 5; 13 March 1936, p. 3; 19 March 1936, pp. 14-15; 20 March 1936, p. 15; 26 March 1936, p. 12; 27 March 1936, p. 8; 28 March 1936, p. 6; and 29 March 1936, p. 7.

4. American National Red Cross, *Spring Floods and Tornadoes, 1936*, pp. 17-21; *New York Times*, 18 March 1936, pp. 1-2; 19 March 1936, p. 1; 20 March 1936, p. 1; 21 March 1936, p. 1; 25 March 1936, p. 8; and 28 March 1936, p. 12.

5. American National Red Cross, *Spring Floods and Tornadoes, 1936*, pp. 20-27, 162; U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936, H.R. 8455, March 19 and 25, 1936* (Washington, DC: Government Printing Office, 1936), p. 11; *Washington Post*, 18 March 1936, p. 1; 19 March 1936, p. 1; 20 March 1936, p. 1; and 21 March 1936, p. 1; *Washington Sunday Star*, 29 March 1936, Gravure sect. pp. 1-2.

6. *New York Times*, 22 March 1936, sect. IV, p. 8.

7. *Washington Evening Star*, 23 April and 31 May 1936.

8. *New York Times*, 30 March 1936, p. 8.

9. Ibid., 24 March 1936, p. 13.

10. Ibid., 30 March 1936, p. 8.

11. "Mopping Up the Flood," *Business Week*, 4 April 1936, p. 20.

12. *Washington Evening Star*, 24 April 1936, p. A2.

13. *Washington Evening Star*, 23 March 1936, p. A1.

14. No biography was written about Copeland. For a detailed obituary, see *New York Times*, 18 June 1938, p. 1.

15. An unflattering portrait of Copeland as a "cunning" servant of "the vested interests in business and politics" appears in Max Lerner, "Tammany's Last Stand," *The Nation* 199 (11 September 1937): 255-257. U.S., Congress, *Cong. Rec.*, 73d Cong., 1st sess., 2 May 1933, p. 2679; *New York Times*, 26 April 1936, p. 12.

16. *New York Times*, 26 April 1936, p. 30; U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 86-87, 210-211, 304-305.

17. Leuchtenburg, *Flood Control Politics*, pp. 67, 94-95, 97.

18. U.S., Congress, *Cong. Rec.*, 75th Cong., 3d sess., 9 June 1938, p. 8619. For a discussion of the New Deal era electric power controversy, see Philip J. Funigiello, *Toward a National Power Policy: The New Deal and the Electric Utility Industry, 1933-1941* (Pittsburgh: University of Pittsburgh Press, 1973).

19. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, p. 6.

20. *Ibid.*, pp. 7-10.

21. *Ibid.*, pp. 11, 22, 34, 54, 62, 195-198.

22. U.S., Congress, *Cong. Rec.*, 74th Cong., 2d sess., 2 April 1936, p. 4780.

23. *Ibid.*

24. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 22-23, 35, 62, 87-88, 90-91.

25. *Ibid.*, pp. 27, 200.

26. *Ibid.*, pp. 22, 27, 122-126, 210-211, 237, 240, 242, 304-305, 336. The provision for penstocks appears in Section 5 of the act.

27. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 40, 230-231; Leuchtenburg, *Flood Control Politics*, pp. 54, 92-94, 98-99; Homer Cummings, Attorney General, to FDR, 2 Aug. 1937, with attached memo and report from Oswald Ryan, 30 July 1937, OF 132, FDR Papers.

28. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 11, 25, 44, 83-86, 100, 119, 209.

29. *Ibid.*, pp. 231-234.

30. *Ibid.*, pp. 264-265, 276-277.

31. See Section 3(c) of the 1936 Flood Control Act. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 28-29, 38, 84-85, 323.

32. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 333-334; Leuchtenburg, *Flood Control Politics*, pp. 49-50, 82-109.

33. U.S., Congress, Senate, Committee on Commerce, *Confidential Hearings on Flood Control Act of 1936*, pp. 60-61.

34. *Ibid.*, pp. 196-197.

35. *Ibid.*, p. 201.

36. *Ibid.*, p. 298.

37. *Ibid.*, pp. 55-57, 89.

38. *Ibid.*, p. 312.

39. *Ibid.*, p. 321.

40. *Ibid.*, pp. 8, 334.

41. Telegram, H.A. Wallace and M.L. Cooke to the President (through White House), 25 Mar. 1936, OF 132, FDR Papers.

42. Radio Message (from USS *Dickerson*), Roosevelt to White House, 26 Mar. 1936, OF 132, FDR Papers.

43. Radiogram, Eliot to Frederic A. Delano (c/o USS *Potomac*), 28 Mar. 1936; and Radiogram, Roosevelt to Secretaries of War, Interior, and Agriculture, 29 Mar. 1936. Both in OF 132, FDR Papers.

44. Telegram, Early to the President, 28 Mar. 1936, OF 132, FDR Papers.

45. Naval Message, George H. Dern, Harold L. Ickes, and Henry A. Wallace to the President, 31 Mar. 1936, OF 132, FDR Papers.

46. Water Resources Committee to Mr. Delano, 2 Apr. 1936, OF 132, FDR Papers.

47. Charles W. Eliot to the President, 13 Apr. 1936, OF 132, FDR Papers.

48. Secretary of War to Chairman, National Resources Committee, quoted in Maass, *Muddy Waters*, p. 83.

49. Nixon, *Roosevelt and Conservation*, 1: 516-517.

50. *New York Times*, 26 March 1936, p. 12; 27 March 1936, p. 11; 29 March 1936, part IV, p. 7; 31 March 1936, p. 1; 1 April 1936, p. 18; 2 April 1936, p. 12; and 3 April 1936, p. 1.

51. Roosevelt, *Presidential Press Conferences*, 7: 215-217.

52. *Ibid.*, p. 216.

53. U.S., Congress, *Cong. Rec.*, 74th Cong., 1st sess., 26 March 1935, p. 4389; Memorandum, FDR for Senator Robinson, 20 Apr. 1936, OF 1092, FDR Papers.

54. U.S., Congress, *Cong. Rec.*, 74th Cong., 2d sess., 12 April 1936, p. 7051; *ibid.*, 21 April 1936, pp. 5774, 5776; and 21 May 1936, pp. 7732-35.

55. Roosevelt, *Presidential Press Conferences*, 7: 228.

56. U.S., Congress, *Cong. Rec.*, 74th Cong., 2d sess., 28 April 1936, p. 6290.

57. Abel Wolman to Mr. Delano, 29 Apr. 1936, OF 132, FDR Papers.

58. Memorandum, Charles W. Eliot for Mr. Delano, 29 Apr. 1936, OF 132, FDR Papers.

59. Draft Amendments—H.R. 8455 attached to Memorandum, Eliot to Delano, 29 Apr. 1936, OF 132, FDR Papers.

60. Memorandum, Eliot for Delano, 29 Apr. 1936.

61. Memorandum, Frederic A. Delano for Secretary Ickes, 30 Apr. 1936, with accompanying memos and draft amendments (President's copy), OF 1092; and FDR to Senator Robinson, 1 May 1936, OF 132. Both in FDR Papers.

62. Mayor of Binghamton to Franklin D. Roosevelt, 5 May 1936, OF 132, FDR Papers.

63. Roosevelt, *Presidential Press Conferences*, 7: 236-237.

64. Carl Hayden to Marvin H. McIntyre, 1 May 1936; and M.H. McIntyre to Sen. Carl Hayden, 11 May 1936. Both in Little Waters File, OF 2450, FDR Papers.

65. Ickes letter to FDR, which accompanied a copy of *Little Waters*, appears in Nixon, *Roosevelt and Conservation*, 1: 460-461. This publication appeared as *Little Waters: A Study of Headwater Streams and Other Little Waters, Their Use and Relations to the Land*, U.S., Congress, Senate, 74th

Cong., 2d sess., Sen. Doc. 198. On Cooke's interest in *Little Waters*, see Morris L. Cooke to the President, 16 Jan. 1936, and Henry Kannee to Cooke, 10 Feb. 1936, both in Little Waters File, OF 2450, FDR Papers.

66. Morris L. Cooke to the President, 5 May 1936; FDR to Cooke, 6 May 1936; and Cooke to the President, 6 May 1936. All in Rural Electrification-1936, OF 1570, FDR Papers.

67. Roosevelt, *Presidential Press Conferences*, 7: 250-251.

68. *New York Times*, 13 May 1936, p. 5.

69. *New York Times*, 16 May 1936, p. 1.

70. U.S., Congress, *Cong. Rec.*, 74th Cong., 2d sess., 20 May 1936, p. 7574.

71. *Ibid.*, pp. 7575, 7577-78.

72. *New York Times*, 19 May 1936, p. 19.

73. U.S., Congress, *Cong. Rec.*, 74th Cong., 2d sess., 21 May 1936, pp. 7696, 7703.

74. *Ibid.*, pp. 7680-81.

75. *Ibid.*, p. 7705.

76. *Ibid.*, pp. 7706-10.

77. *Ibid.*, 3 June 1936, pp. 8851-60, 8862-63.

78. *Ibid.*, 15 June 1936, p. 9443.

79. Herbert H. Lehman to the President, 8 May 1936; and FDR to Hon. Herbert H. Lehman, 23 May 1936. Both in OF 132, FDR Papers.

80. Gen. E.M. Markham to M.H. McIntyre, 27 May 1936; and M.H.M., Memo for the Files, 27 May 1936. Both in War Department Files, OF 25n, FDR Papers.

81. FDR to Director of the Budget, 2 June 1936, Little Waters File, OF 2450, FDR Papers.

82. FDR to R.F. [Rudolph Foster], 16 June 1936, with undated attachments, OF 132, FDR Papers.

83. Telegrams, dtd 19-22 June 1936, OF 132, FDR Papers.

84. F.H. Truitt, Chairman, Flood Control Committee, Binghamton Chamber of Commerce, to Honorable Franklin D. Roosevelt, 23 June 1936, OF 132, FDR Papers.

Chapter VI

1. Clawson, *New Deal Planning*, pp. 203-204, 225-226, 237-242.

2. The most current summary compendium of water resources legislation and policies is U.S. Army Corps of Engineers, *Digest of Water Resources and Authorities* (Washington, DC: U.S. Army Corps of Engineers, 1983).

3. The most comprehensive discussion of water resources legislation and programs since 1936 can be found in Holmes, *A History of Federal Water Resources Programs, 1800-1960*, pp. 13-43; and her companion volume, *History of Federal Water Resources Programs and Policies, 1961-70*, Miscellaneous Pubs no. 1379 (Washington, DC: USDA, Economics, Statistics, and Cooperatives Service, Government Printing Office, 1979).

4. John R. Mather, *Water Resources: Distribution, Use, and Management*

(New York: John Wiley and Sons, 1984), pp. 301-302.

5. See for example, Commission on Organization of the Executive Branch of the Government, *Task Force Report on Water Resources Projects* (Washington, DC: Government Printing Office, 1949), pp. 10-20; and President's Water Resources Policy Commission, *A Water Policy for the American People*, vol. 1, *General Report* (Washington, DC: Government Printing Office, 1950), p. 147.